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draft final general management plan

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SAGUARO

draft final general management plan

May 1988

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INTRODUCTION

The purpose of the general management plan for Saguaro National Monument is to ensure the continued protection of resources in light of major growth and changes in the surrounding region, define the monument's recreational and educational role in relation to other public lands in the Tucson basin, and heighten people's awareness and appreciation of its significant desert landscapes.

This Draft Final General Management Plan is based on proposals in the Draft Environmental Assessment/ General Management Plan, which was distributed to approximately 1,000 people, organizations, and agencies during July 1987. Public comments were received for 75 days through 14 special briefings, two public hearings held in September 1987, and over 160 letters or other written comments. This Draft Final General Management Plan incorporates many of the public comments and presents a plan that combines proposals found in the four alternatives. Because the Draft Environmental Assessment/ General Management Plan contained all actions proposed in this plan, their present combination has not altered the impacts, and the environmental compliance necessary was completed in the draft environmental assessment.

This document will be on public review for 30 days, until June 22, 1988. Comments should be sent to:

Bill Paleck, Superintendent
Saguaro National Monument
3693 South Old Spanish Trail
Tucson, AZ 85730

For further information call: (602) 629-6680.

ISSUES ADDRESSED IN THE FINAL PLAN

Actions presented in the final plan are needed to meet the monument's management objectives and to address the following issues and concerns.

PROTECTION OF RESOURCES

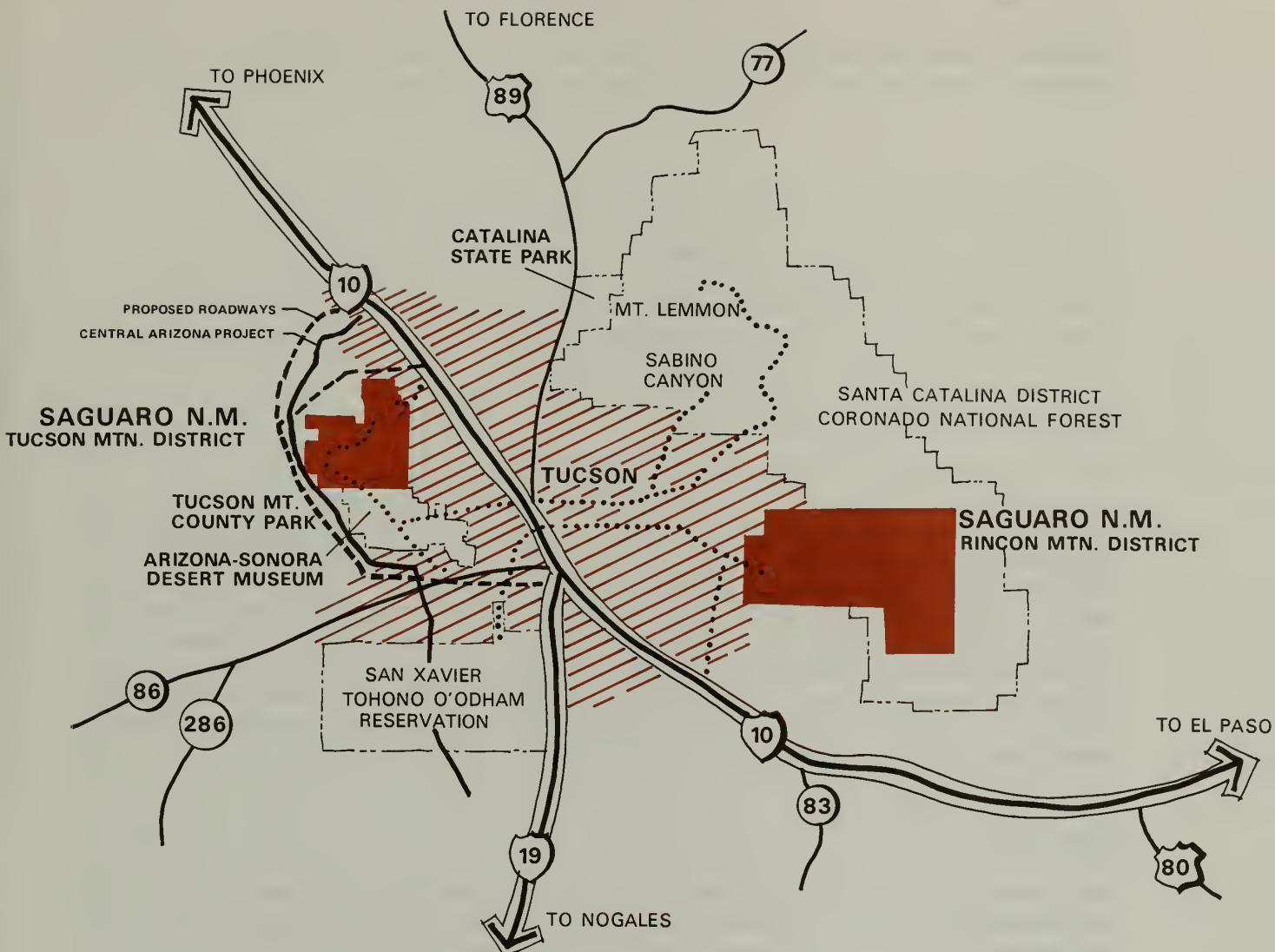
Comprehensive Planning

Saguaro's two districts are part of the much larger Tucson basin. Neither district encompasses a total ecosystem, and the monument's wildlife and air and water resources are directly affected by uses on surrounding public and private lands. It is impossible to plan or manage the monument in isolation, and ties with adjacent land managers and city and county planning entities guiding private land use and development along monument boundaries are essential. Coordination is currently done on an informal basis and in some cases is not efficient or effective.

Various county and city zoning and land use plans are in force or in preparation. They have been developed with sensitivity and concern for the monument. In the future, municipal zoning authority will likely extend to the monument boundaries. As development spreads throughout the Tucson Basin, these jurisdictions will continue to face pressures for modification and revision of the plans, generally in the direction of more intensive development. In response to these trends and pressures, an interjurisdictional effort to produce a comprehensive plan for Pima County has been underway for several years. The Comprehensive Plan Steering Committee recently released its "Revised Regional Goals and Objectives." The National Park Service supports these goals and objectives as they relate to the continued protection of resources and visitor enjoyment at Saguaro National Monument. It fully endorses their use and implementation. The National Park Service will continue to actively cooperate with this group in support of their efforts to complete a comprehensive plan that is sensitive to the values within the monument.

The Park Service supports the current zoning approach of maintaining decreasing density adjacent to the monument boundaries and suggests that this approach be complemented with efforts to increase percentages of retained undisturbed natural open space near the boundaries as well as within critical areas of contiguous environmental sensitivity. The Park Service also supports current efforts to provide for long-term protection of wildlife and scenic resources while maintaining reasonable opportunities for economic vitality and growth through the preparation of specific development performance standards. These standards can serve to ensure the maintenance of resource and community values while encouraging careful, creative, quality development.

The need for cooperative planning and careful treatment of adjacent lands has been expressed by the Estes Company in its initial contact with Saguaro National Monument staff regarding future development of the



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6,000-acre Rocking K Ranch property on the monument's south boundary. The potential impacts of any development of this size upon the natural resources, visitor experiences, and operating requirements of the monument are manifest. The developer has shown awareness of these potential impacts, and the Park Service has agreed to review and, as appropriate, comment on development proposals.

The Central Arizona Project (CAP) is a 330-mile canal system that will bring Colorado River water from Lake Havasu to south-central Arizona and Tucson by 1991. The Tucson Aqueduct, the final leg of the project, will parallel the western boundary of the Tucson Mountain district and adjacent Tucson Mountain County Park. The impact of this canal on wildlife migration routes, scenic vistas, and noise levels within the Tucson Mountains is a critical consideration in planning for the monument.

Wildlife

The Park Service continues to monitor and study wildlife within the monument, but it does not have data on how wildlife populations relate to lands and activities outside the monument. For example, adjacent residential developments, major transportation corridors like Interstate-10, and the CAP may affect seasonal wildlife movements and the search for food and water. The following questions require further research and study: What role does the monument play as a refuge or seasonal home for native wildlife species? What effects will the loss of habitat adjacent to the monument have on monument wildlife? Will the Tucson Mountains provide adequate range? What impacts do neighboring pets have? How significant are road kills and how might they be reduced?

Plant Life

The monument's Sonoran Desert plant life continues to be affected by vandalism, theft, and public uses that can harm its delicate balance with the arid land. Once damage has been done, years are required for recovery. The value of desert conservation is not always fully understood by visitors or people living within the Tucson basin.

Noise and Aircraft Intrusions

The monument is near Davis Monthan Air Force Base, Silverbell Army Airfield, Ryan Airfield, Tucson International Airport, and Avra Valley Airport and is subject to noise generated by military aircraft overflights and regularly scheduled airlines. The districts lie on the east-west approaches to the major airport and airbase, and aircraft frequently fly below the 2,000-foot minimum elevation advised by the FAA over wilderness areas. Although the extent of the impact of aircraft noise on wildlife is not known, visitors often react adversely to jet noise, especially in the backcountry.

Both units are principally wilderness. The opportunity for solitude is prized by many visitors, and there is increasing concern over the intrusion of noise from traffic and adjacent development in addition to aircraft overflights. CAP pump stations may well become a constant background noise in the Red Hills area of the Tucson Mountain district and in portions of Tucson Mountain County Park.

Local recreational use of ultralight aircraft, which is not licensed or regulated by the FAA, is increasing, and an ultralight airfield is close to the Rincon Mountain district. Ultralight pilots flying over the district frequently do not gain the elevation advised over wilderness (2,000 feet) and are not subject to the 500-foot minimum altitude required over developed areas. In addition, noise levels associated with ultralights are especially high and noise durations are longer because of their relatively slow speeds. Although the Code of Federal Regulations prohibits ultralight landings in the monument, the hazardous nature of the sport could result in forced landings and the need for rescue by park protection staff.

Air Quality and Water Resources

The Park Service has concerns about possible negative effects on the monument's air quality and water resources. Although the Park Service is required by the Clean Air Act Amendments of 1977 to maintain air quality over the monument, growing evidence indicates that monument plants are being directly damaged by elevated pollution levels in the region; deteriorating air quality is also beginning to impair the views from Tucson toward the monument and from the monument toward Tucson and other parts of the basin. Springs and other watercourses define important ecological niches within the monument and provide a substantial proportion of the watershed recharge for the basin's underground water resources. Although the monument's resources are at the upper levels of the waterflow, the region continues to use far more water annually than can be recharged. Currently, a balance between regional development and the retention of scenic vistas and adequate water resources does not exist.

Cultural Resources

Cultural resource concerns include the appropriate use of Manning Camp (adaptive use for administrative purposes or interpretive use for visitors), the appropriate level of preservation and use of other historic resources, the interpretive value of all cultural resources, the identification and protection of archeological sites, and the management of abandoned mining sites.

VISITOR USE AND DEVELOPMENT

Information and Interpretation

Many of the problems related to visitor services are a result of inadequate facilities and limited funds to implement changes. Information and interpretation are inadequate in both districts, and there is little coordination concerning themes or approaches. In the Rincon Mountain district media is outdated and the central theme is still the "prime cactus forest," although the prime forest no longer exists and many of the individual cacti there are scattered and aged. In the Tucson Mountain district space and media are so limited that very little information or interpretation is being conveyed to visitors. Personal services such as interpretive programs, manned information desks, and guided walks in both districts are accomplished almost entirely by volunteers, but there is not enough staff to provide supervision, coordination, and quality control. Specialized programs, like environmental education, have great potential in this urban setting but are limited because of the lack of adequate staff.

The monument is one of many local tourist attractions. Little coordination exists with the Tucson Convention and Visitors Bureau and land-managing agencies to provide visitor orientation to the basin or monument resources. Monument signs on the interstate and in Tucson are either lacking or inappropriately located, causing visitors to travel through long and unattractive access routes. Within the monument there is not enough information provided to the public about trailheads, trails, or other recreational facilities and opportunities.

The Rincon Mountain district shares a wilderness area with adjacent Coronado National Forest, and management policies and allowable uses vary. As an example, in the backcountry the Forest Service allows unrestricted camping and ground fires without grates; these practices are not allowed within the monument. The Tucson Mountain district abuts Tucson Mountain County Park, and policies and allowable uses also differ there. As a result, users are unclear as to permissible behavior, leading to enforcement problems as well as poor public relations.

Access/Circulation

As the monument is gradually encircled by private residential development, access becomes a critical issue in two ways: public access through these private developments to monument trailheads is denied; indiscriminate access by adjacent homeowners can occur. Currently there is no designated public access on the south boundary of the Rincon Mountain district and the east boundary of the Tucson Mountain district, making those portions of the monument inaccessible except by longer and indirect routes. Homeowners in existing or future developments that are adjacent to the boundary can and do cross the boundary indiscriminately, without the benefit of designated trails or information. The existing access points and circulation routes in both districts need to be evaluated

in view of resource protection and future interpretive and recreational demands.

Heavy use of the dirt roads in the Tucson Mountain district affects air quality, and if traffic volume is high, dust disrupts visitor experiences. Commuter use of roads crossing this district creates safety hazards, greatly increases road patrol and maintenance requirements, and conflicts with visitor enjoyment of the monument. In 1985 approximately 1.2 million commuter cars used Picture Rocks Road and Sandario Road, and 24 accidents were recorded. The 1986 Pima County Regional Transportation Plan proposes several major arteries around the Tucson Mountain district that would provide alternate routes for the commuter traffic currently using monument roads to travel between the Avra Valley and Tucson. The bypass roads along the north and west sides of the district are supported by the Park Service and would be implemented before road changes affecting commuters would be undertaken by the Park Service.

Recreational Use and Development

As the needs, interests, and numbers of visitors have changed, so have their requirements for facilities. Visitor center areas are increasingly overcrowded; parking lots are often filled to capacity with oversized vehicles, and building interiors are too small to accommodate the numbers of visitors. Roads that principally serve "windshield visitors" are also used by bicyclists, joggers, wildlife watchers, and commuters and can be frustratingly crowded, detracting from a relaxed leisurely experience. Demand for easily accessible horseback and hiking trails is intense. In the monument's frontcountry, informal trails have proliferated, outstripping the staff's ability to patrol, maintain, or eliminate them. Designated backcountry and frontcountry trails are frequently in substandard condition, lessening visitor enjoyment and creating safety and maintenance problems. Backcountry trails are becoming more popular, raising questions of how much more trail development should be permitted and where access should be provided.

Picnicking is popular, especially at facilities that accommodate large groups. The plan needs to determine the most appropriate places for providing these facilities and for encouraging picnicking by small groups and first-time visitors in association with monument viewing.

PARK OPERATIONS

Because of the monument's location adjacent to a sprawling urban area and its proximity to other public lands, effective management demands close communication and cooperation with other land management agencies and governmental bodies concerned with Tucson and Pima County. At present, efficient management is hindered because of insufficient funding and staff and inadequate facilities. Management facilities in the Rincon Mountain district are currently strained, and there is no office space available for additional staff. In the Tucson Mountain district,

management facilities are grossly inadequate. Administrative offices and maintenance functions are in a modified garage, which creates crowded and unpleasant work conditions. The trailer used for seasonal housing is substandard.

THE PLAN

This general management plan endeavors to resolve the issues previously discussed by enhancing the visitor's experience while protecting the important resource values of the monument from the encroaching urban development.

ESTABLISHMENT OF A TUCSON BASIN INTERAGENCY LAND MANAGERS FORUM

Recognizing that the most effective responses to external threats facing the monument resources would be those jointly formulated and supported by a coalition of public land managers, the National Park Service will endeavor to cooperatively form such a coalition. Representation by federal, state, county, and municipal land managers and planners will be sought. This forum may be informally organized, or it may involve a formal charter and operate under the aegis of an existing county authority such as the Pima County Association of Governments. In either case, the objectives of such a group should include

- providing a forum for discussion of common threats and problems and an opportunity to reach a consensus on solutions or approaches to issues such as adjacent land uses, air and water quality, transportation, environmental education, and resource protection

- ensuring that free and open communication between land-managing agencies continues regardless of changing personnel

- encouraging the development of consistent, or complementary, policies for managing wildlife, fire, emergencies, and wilderness use, with the goal of providing better resource protection and service to the public

- encouraging the coordinated preparation, review, and execution of long-range plans and operational strategies with the objective of ensuring compatible or complementary opportunities and services as well as increasing efficiency by sharing equipment and facilities where feasible

NATURAL RESOURCE MANAGEMENT

The monument has an approved and updated "Resource Management Plan" that provides guidelines for the management of natural resources; however, based on recently identified needs and concerns, the following amendments are proposed.

- The highest research priority will be the analysis of wildlife activities and requirements along the boundaries between the monument and nonfederal lands that have been or are likely to be

intensively developed. Although baseline studies of flora and fauna outside the critical border areas are important, these studies will have a lower priority.

Air quality monitoring will be expanded in the Rincon Mountain district to include a high elevation station and will be implemented in the Tucson Mountain district. Any apparent impacts on plants and animals will be documented. The results of this research and monitoring will be communicated to other park and regulatory agencies in the region. Appropriate steps will continue to be taken to encourage compliance with the goal of maintaining class I air quality over the monument and to maintain integral vistas.

A monitoring program of noise levels, particularly aircraft noise, will be undertaken in both districts. The data provided will lead to recommendations for alternate flight paths and better aircraft compliance with FAA height advisories. Cooperation with local ultralight associations will be sought in eliminating their use over monument land.

Four unique or especially sensitive resource areas will be classified as protected natural areas: Box Canyon, Lower Madrona/Chimenea Creek Canyon, and Wildhorse Canyon in the Rincon Mountain district and a portion of bajada desert on the western boundary of the Tucson Mountain district. The first two areas will be classified to preserve the unique riparian plant communities, which are rare in the Sonoran Desert; the Wildhorse protected natural area will preserve an uncommon and highly important area of permanent water in an otherwise dry environment; and the bajada protected natural area in the Tucson Mountain district will protect the endangered Tumamoc globeberry (a vine) and sensitive species of cacti. Monument personnel will undertake their own or cooperative research and inventory to document existing conditions, promptly identify any changes in these conditions and, when necessary, institute public use restrictions to ensure that these areas are adequately protected. Restrictions may be as minor as routing trails to avoid these areas or may include requiring special permits with briefings provided by park personnel prior to entering the areas. In some cases, limits on the numbers of visitors or means of access may be required.

CULTURAL RESOURCE MANAGEMENT

Archeology

Archeological surveys have been conducted in the Rincon Mountain district and at Camp Pima in the Tucson Mountain district. As a result of these surveys the Rincon Mountain Foothills Archeological District has been placed on the National Register of Historic Places. Petroglyphs and the remains of temporary campsites exist in the Tucson Mountain district. Caves and rock-shelters, which are located throughout both areas, hold the promise of demonstrating a stratified sequence of human occupation.

Known archeological sites, including petroglyphs and other forms of rock art, will be protected from trail and facility development that could pose a threat. Caves and rock-shelters will be identified, surveyed, and protected. Continuing efforts will be made to make visitors aware of the delicate nature of all archeological resources within the monument.

If an archeological site must be damaged by a development project, the Park Service will develop and implement a data recovery program acceptable to the state historic preservation officer that incorporates generally accepted professional procedures, follows the Park Service's own guidance, and takes into account the Advisory Council on Historic Preservation's Treatment of Archeological Properties: A Handbook.

Archeological surveys will be undertaken on a site-specific basis for areas of potential development and in areas of high archeological potential that have not yet been subject to systematic surveys. The Western Archeological Center will continue to do cataloging and curation of artifacts.

Historic Resources

Currently, one building--the Manning cabin--is listed on the National Register of Historic Places. This cabin will continue to be adaptively used as a backcountry and fire crew cabin.

Other historic sites, structures, and buildings are in the process of being nominated to the National Register as a result of a historic resources study completed in 1987. They are as follows:

CCC-era structures in the Tucson Mountain district consist of five picnic facilities, 13 dams, two wildlife water supply facilities, and the remains of Camp Pima. Picnic facilities will be maintained, used, and interpreted. Selected dams will be rehabilitated for use in mitigating impacts of the CAP; others will remain in place as historical archeological sites. The Dobe Robinson and Red Hills water facilities will be rehabilitated to provide year-round water supply for large mammals, thus helping to mitigate the impacts of the CAP. The remains of Camp Pima are in a deteriorated state and serve no active use; the camp will be fully documented and allowed to continue to deteriorate. Mitigating measures will be developed in consultation with the state historic preservation officer and the Advisory Council on Historic Preservation.

Also within the Tucson Mountain district are two mines--Gould and Mile Wide--that are being nominated to the National Register. These sites will be preserved and interpreted. Other mines and prospect holes that have been evaluated and determined not to meet National Register criteria have been located and fenced for visitor safety.

Four lime kilns, two in the Tucson Mountain district and two in the Rincon Mountain district, are being nominated to the National

Register. These structures will be preserved, to the extent possible, and interpreted.

All of the treatments proposed for historic properties will conform to the secretary of the interior's "Standards for Historic Preservation Projects" and guidelines for rehabilitating historic buildings.

MANAGEMENT ZONING

Monument managers have adopted a zoning system for the lands within the boundaries based on the established National Park Service management zoning categories (see the Existing Management Zoning map). This zoning system is used as a tool to identify how specific lands will be managed to protect the monument's resources and provide for visitor use. The existing management emphasis for each zone and subzone at Saguaro is given below; management zoning under this plan is described under the development sections for each district.

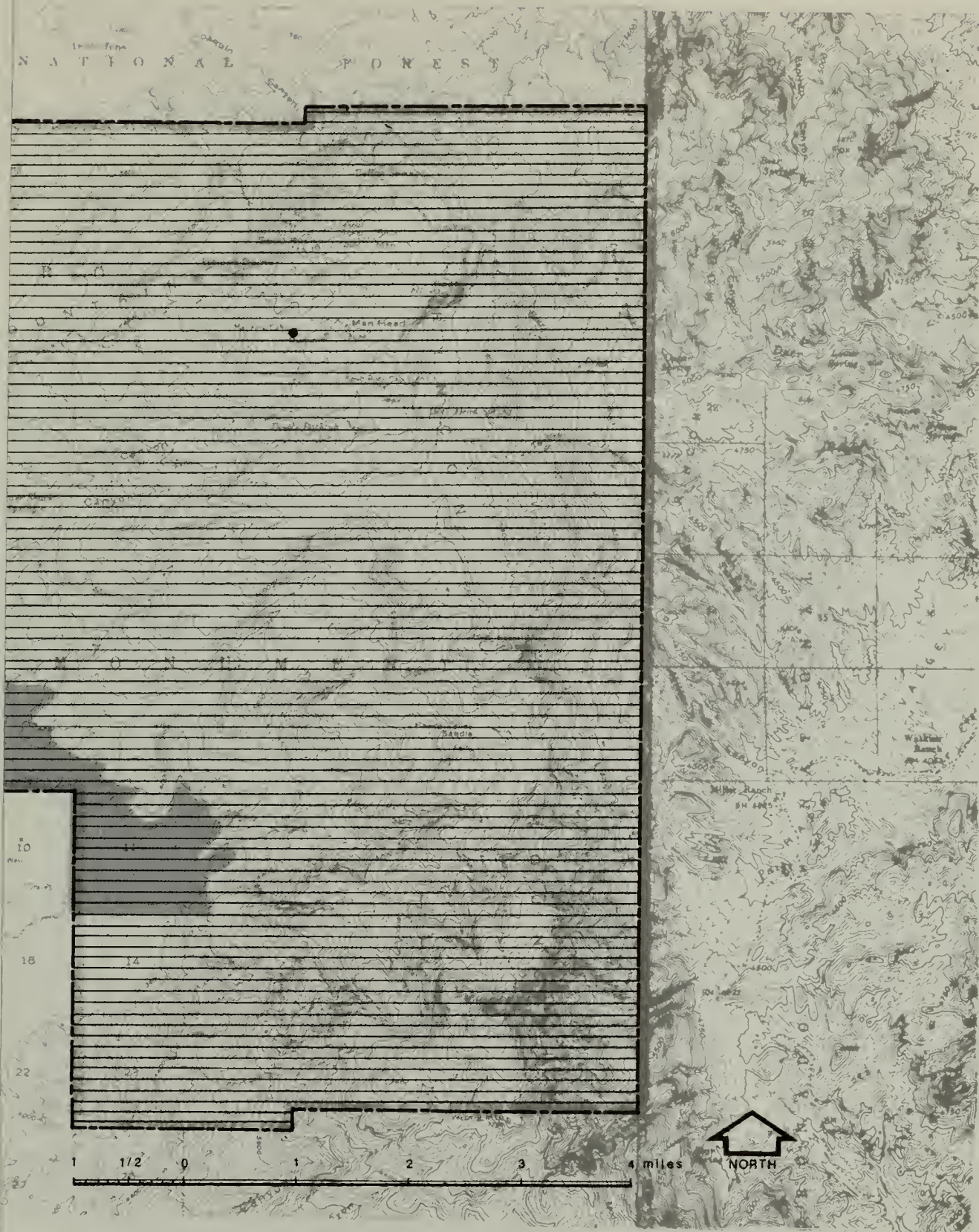
Natural Zone. Most monument lands are included in this zone, and the management emphasis is on the conservation of natural resources and processes. In certain locations, uses are allowed that do not adversely affect these resources and processes.

Wilderness Subzone. The majority of the Rincon Mountain district and large portions of the Tucson Mountain district were designated by Congress as wilderness areas in 1976 (PL 94-578, 10/21/76) following approval of the 1975 Final Environmental Statement, Proposed Wilderness, Saguaro National Monument. As defined by the Wilderness Act of 1964, a wilderness area is "an area of undeveloped Federal land retaining its primeval character and influence, without permanent improvements or human habitation, which is protected and managed so as to preserve its natural conditions." The designated wilderness areas within the monument have been placed in a wilderness subzone of the natural zone and managed to minimize human impact while providing opportunities for primitive types of recreation.

Protected Natural Area Subzone. This subzone provides for the perpetuation of geological or ecological values without or with minimal human intrusions because of unusual fragility or ecological significance; an example would be endangered species habitats.

Development Zone. This zone includes small areas containing the main visitor use and management facilities in both districts. The management emphasis is on maintenance of facilities to serve the needs of visitors and management. This zone is limited to those areas where there has been substantial alteration of the natural environment.

Historic Zone. This zone is usually superimposed on other zones and includes specific cultural resources of historical or archeological



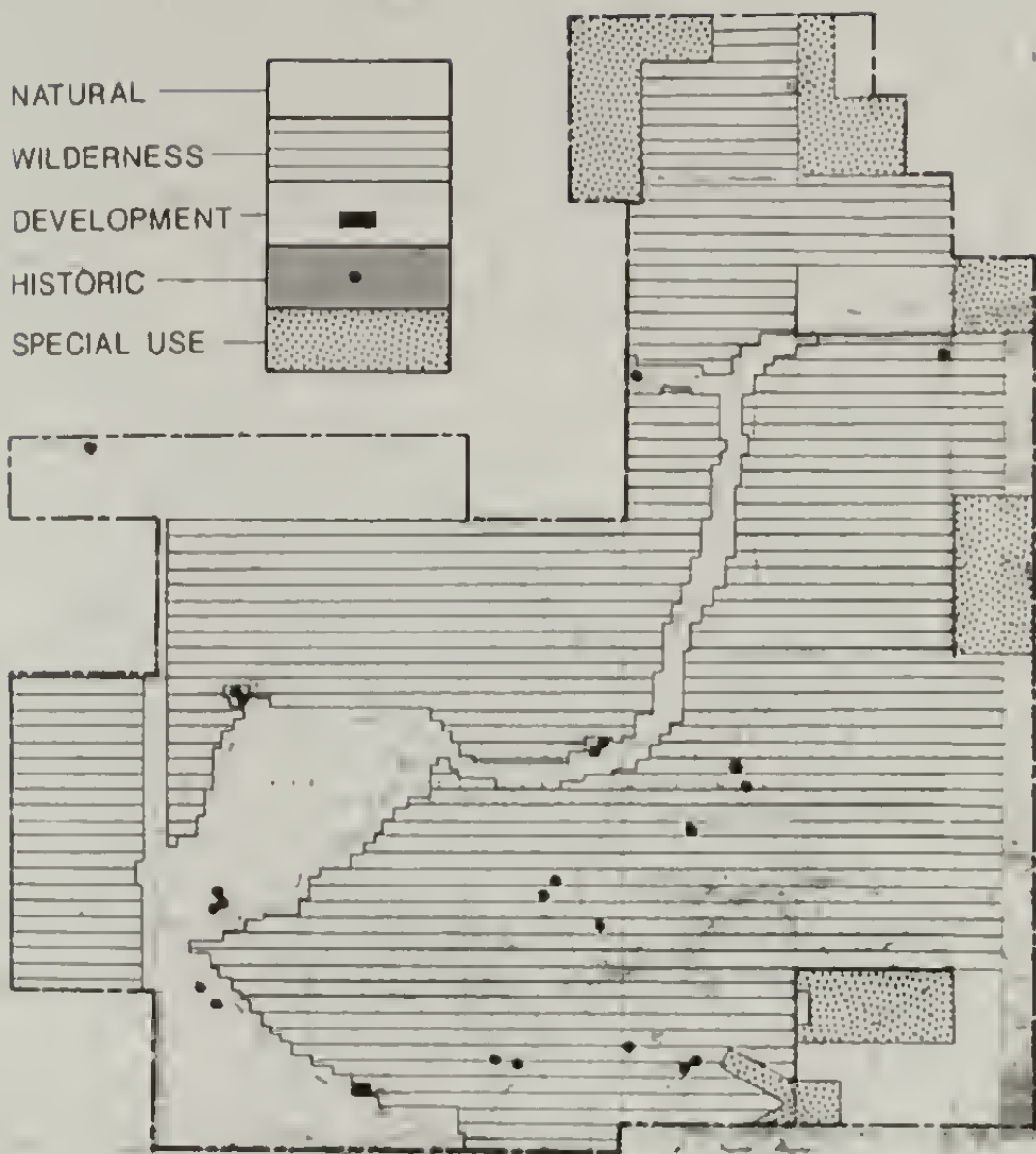
EXISTING MANAGEMENT ZONING

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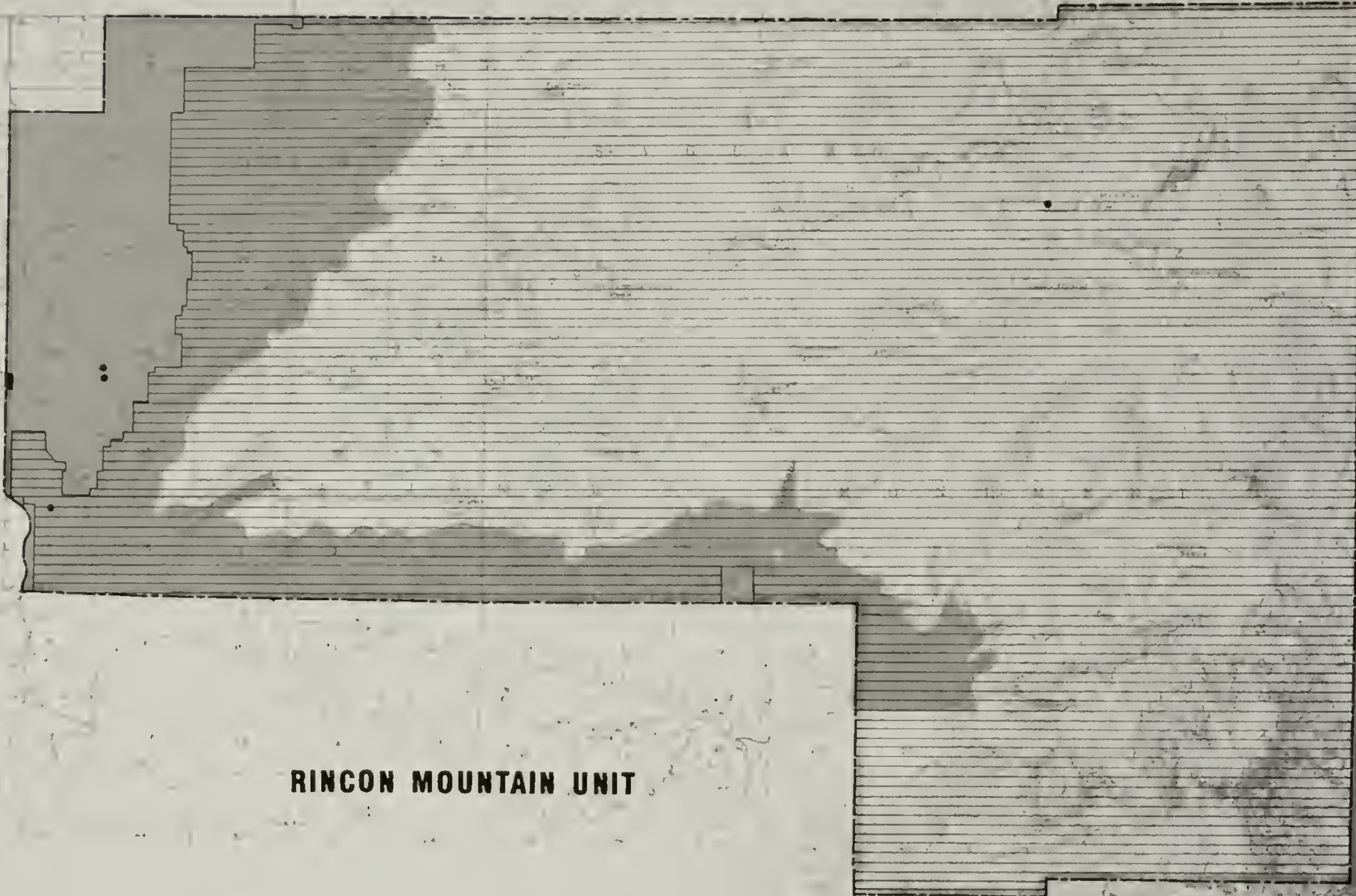
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NATURAL
WILDERNESS
DEVELOPMENT
HISTORIC
SPECIAL USE



TUCSON MOUNTAIN UNIT



RINCON MOUNTAIN UNIT



EXISTING MANAGEMENT ZONING

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importance. It may be extensive when resources are scattered throughout a district or restricted to specific sites. The primary features include Manning Camp, the archeological district, the CCC picnic facilities, and the lime kilns and mines.

Special Use Zone. This zone includes areas that lie within the boundaries of the monument but are owned or managed by other agencies or private interests. All special use lands are in the Tucson Mountain district, and most are owned by the state. Two small tracts are owned by private interests; one is currently being acquired by the Park Service. The approved 1985 Land Protection Plan for the monument identifies specific tracts and their owners.

VISITOR SERVICES

To provide more efficient public service, the Park Service will, in cooperation with other public land managers and officials, seek to accomplish the following:

Designate a regional recreation trail system linking all or most of the basin's public lands. Such a trail system should include a mountain crest component running north across the Rincon Mountains from Pima County parkland at Colossal Cave or Cienega Preserve, continue north and west across the Catalina Mountains in the Coronado National Forest, cross various current and proposed segments of county and municipal trails to link with the Tucson Mountain district trail system, and eventually connect with trails in the Tucson Mountain County Park. Equally important components will be cross-basin metropolitan segments that provide pedestrian, equestrian, and bicycle access through interconnected multipurpose trails. These components should link important foothill trailheads with city and county regional parks and business districts.

Establish closer coordination among the public land managers and local service agencies like the Tucson Convention and Visitors Bureau so that information about basinwide opportunities and services can be better provided to the public. This information should be available in a central downtown location as well as in each park and forest and might involve a jointly prepared Tucson public lands brochure. A summary of this information might also be made available by establishing a telephone hotline number.

Establish coordinated sign systems on the interstate and in downtown Tucson, designed in cooperation with appropriate state, county, and city agencies. Entry to the Tucson Mountain district from the interstate would be along St. Mary's and Anklam Roads over Gates Pass or by way of Arizona 86 to Kinney Road. Access to the Rincon Mountain district from the interstate would be north along Houghton Road and east on Escalante Road.

The Park Service will, to the extent possible, provide public facilities and programs accessible to and usable by all segments of the visitor population. New facilities in developed areas will be made handicap-accessible, as will existing facilities that are remodeled. Wilderness, primitive, and backcountry sites will remain basically unimproved. Certain trails in nonwilderness areas will be formalized and made accessible to disabled persons. Consultation and coordination regarding accessibility considerations will be carried out with local clubs and organizations whose members are disabled as well as with the general public where possible.

Trail systems will be designed in both districts to reduce random use and the proliferation of informal trails. Unnecessary trails will be eliminated, and new ones provided to link points of interest, connect with trails on adjacent public lands, or to tie existing trails to new access points. Existing and newly designated trails will be rehabilitated and maintained to appropriate standards.

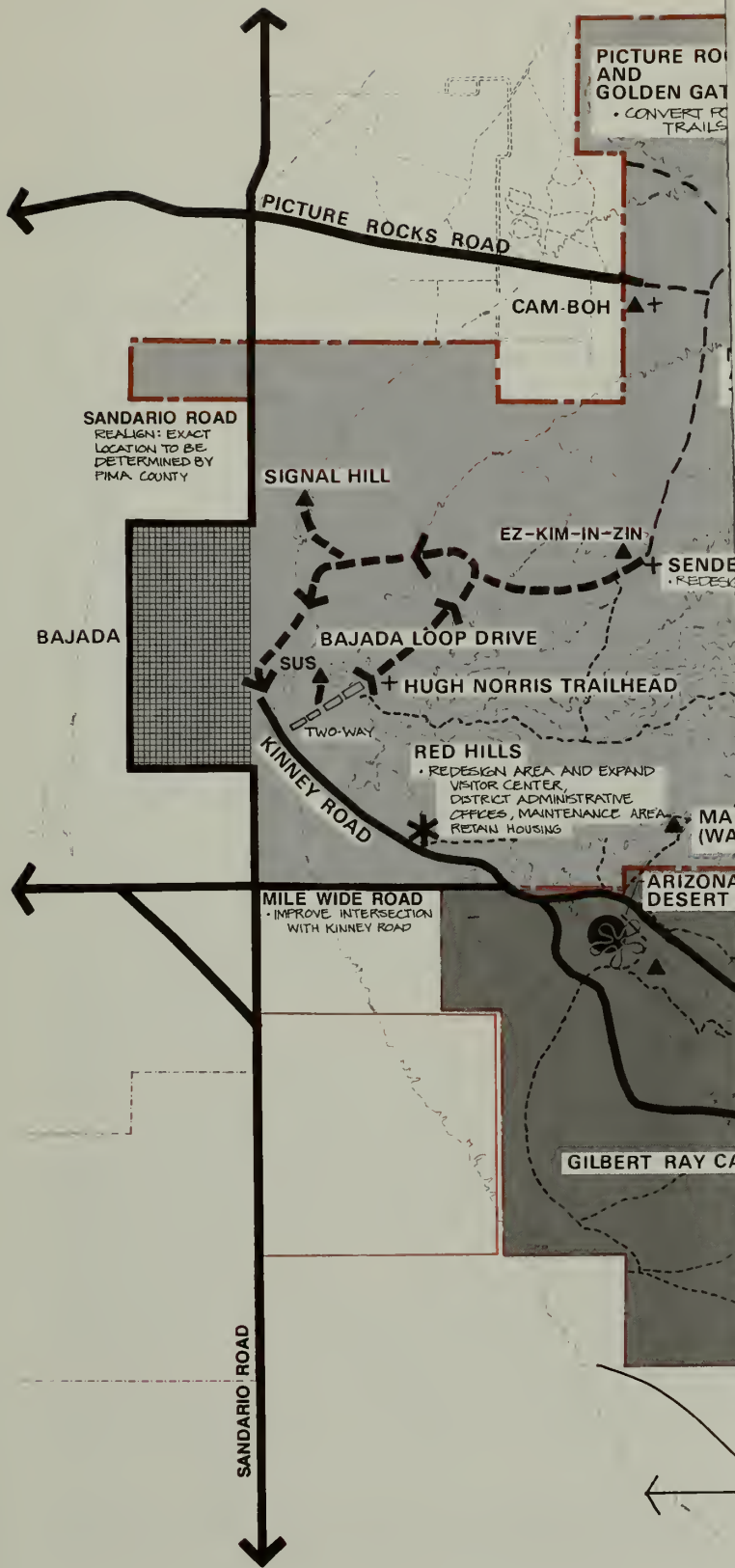
DEVELOPMENT AND USE

The plan provides for a wide range of visitor experiences. Actions proposed for the two districts reflect a decision to enhance or expand opportunities rather than duplicate those that are currently available. In the Tucson Mountain area, first-time visitors and others seeking easily accessible attractions and scenic-driving experiences are already well served by the facilities in Tucson Mountain County Park (Old Tucson, the Arizona-Sonora Desert Museum, and the McCain loop road). Therefore, proposals for the adjacent Tucson Mountain district will encourage complementary experiences--gravel road touring, hiking, and long-distance horseback riding.

In the Rincon Mountain district the large designated wilderness area currently offers plentiful opportunities for backcountry hiking, camping, and horseback riding. Here the focus will be on improvements in the frontcountry to highlight the special values of this district and encourage visitors to view the dramatic desert-to-mountain landscape, the riparian areas, and the beauty of the individualized older cacti. More trails for short or extended hikes into this environment will be provided. Proposals will also include modifications to the visitor center, tour route, and existing trail system to reduce existing use conflicts and enhance experiences for visitors.

Tucson Mountain District

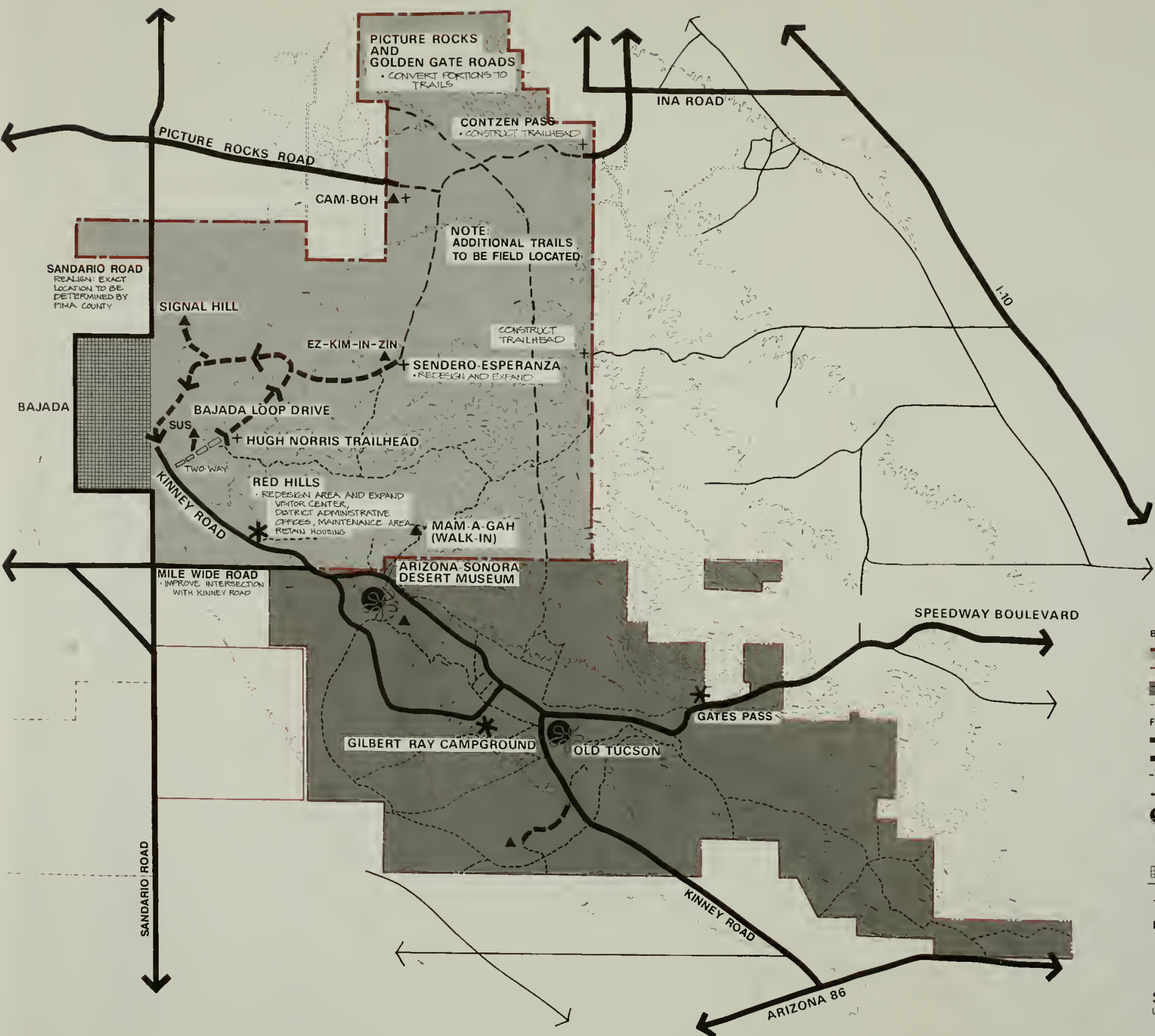
The plan assumes continued close cooperation in providing complementary visitor activities at the monument and Tucson Mountain County Park. Together the park and monument will accommodate a full range of recreational experiences, including high-density and specialized (Old Tucson and the Arizona-Sonora Desert Museum); easily accessible and interpreted (the McCain loop road, motor nature trail, and short, fairly



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OUNTAIN DISTRICT **E PLAN**

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- BOUNDARIES**
- NATIONAL MONUMENT
 - STATE
 - COUNTY
 - INDIAN RESERVATION
- FACILITIES**
- PAVED ROAD
 - UNPAVED ROAD
 - TRAIL
 - PROPOSED TRAIL CORRIDOR
 - VISITOR / ADMINISTRATIVE FACILITY
 - PICNIC AREA
 - TRAILHEAD
 - PROTECTED NATURAL AREA



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level trails in the county park); primitive (gravel roads in the monument and longer trails in the county park and monument); and wilderness (even longer trails in the monument).

The principal interpretive focus will be the lower Sonoran life zone of the Tucson Mountains. Information will be provided to help visitors select activities or programs best suited to their needs, interests, and time. To accomplish this, the visitor center at Red Hills will be expanded and information/orientation provided. In addition, media at the visitor center, and in some cases on-site, will interpret the Tucson Mountain ecosystems, giving visitors a greater appreciation and understanding of the resources. Publications will be available for those hiking in the backcountry.

All existing picnic areas will be retained. The backcountry trail system will be expanded to allow longer hikes, and new trailhead access points will be developed at the terminuses of Picture Rocks Road, on the eastern boundary, and in the Red Hills visitor area. The existing Sendero-Esperanza trailhead will be expanded. Trail connections to the county park trails will be provided, along with cooperatively sited and managed trailheads at Man-A-Gah and on the eastern boundary of the monument in the Sweetwater Road locale. Further decisions concerning backcountry use and the feasibility of backcountry campsites will be addressed in the backcountry management plan, which will be prepared following approval of the general management plan.

The Bajada loop drive, adjacent picnic areas and trailhead parking lots, and the portion of Golden Gate Road providing access to the Sendero-Esperanza trailhead will be reengineered for proper drainage and graveled. The portion of the loop to Hugh Norris trailhead will remain two-way. The portion of Golden Gate Road from Sendero-Esperanza trailhead to Picture Rocks Road will be obliterated, revegetated, and used as a trail corridor. That portion of Picture Rocks Road within the current boundaries of Saguaro National Monument will continue to remain open and be maintained as an interpretive road. Through federal regulation, the National Park Service will consider reductions in current speed limits in the interests of vehicular safety, visitor enjoyment, and resource protection. If and when the proposed Twin Peaks corridor or another comparable corridor is constructed and is accessible by the residents of the Avra Valley, then the National Park Service will close the portion of Picture Rocks Road within the current boundaries. At least 90 days prior to effecting this closure, the National Park Service will formally record a deed in favor of Pima County for the portion of the right-of-way that is within the area covered by the 1976 boundary expansion, consistent with the conditions of the 1982 intergovernmental agreement. The Park Service will, however, urge the Pima County Board of Supervisors to either refrain from accepting this responsibility, or, immediately after accepting, to abandon the right-of-way. Restoration of the closed road will then be undertaken, and its route converted to a trail corridor.

Sandario Road, between Ft. Lowell Road and Manville Road, will be closed if and when Pima County provides parallel access west of the monument.

In the interests of safety and resource protection, Pima County will be urged to place a high priority on this road relocation. This closed road segment will be revegetated and considered as a trail corridor when the trail system is designed. Mile Wide Road will remain open as a visitor access route.

The National Park Service will immediately begin negotiations with Pima County to exchange those portions of Mile Wide, Sandario, Manville, Ft. Lowell, and Rudasill roads that are currently owned, in part, by the U.S. Government (National Park Service) for equal value lands owned by Pima County within the monument boundaries.

Tuscon Mountain district headquarters will be retained in the redesigned Red Hills area, either in the visitor center or maintenance area. Because of the need for additional backcountry patrols, staff housing and the horse corral will remain in that area. The maintenance area will be redesigned and relocated to provide adequate working space and separation from the visitor use portion of the development.

Portions of the land currently in the natural zone will be classified as potential wilderness (wilderness designation requires legislative action). This will include all special use parcels that were converted to federal ownership, portions of the monument that were acquired when the boundary was expanded in 1976, and the land restored after the removal of portions of Golden Gate, Picture Rocks, and Sandario roads. In addition, land on the western boundary will be classified as a protected natural area, a subzone of the natural zone, to protect an endangered plant species and reflect its ecological and scientific values. Other zoning will remain the same.

Rincon Mountain District

The Rincon Mountain district will be developed and managed to highlight its resource values, including the beauty and character of individual cacti, the desert-to-mountain landscape, the seasonal water, and the views of the city. A featured visitor use area will be identified along the foothills where these values can best be appreciated. The area will be designated for hiking only. Pulloffs, short interpretive trails, and waysides will be developed to encourage spontaneous stops and draw people into the desert landscape. Although the focus will be on services for national visitors, a variety of locally popular opportunities will be provided in the frontcountry--auto touring on Cactus Forest Drive, hiking, horseback riding, bicycling, and picnicking. The backcountry will continue to attract hikers and horseback riders seeking longer trails and overnight experiences.

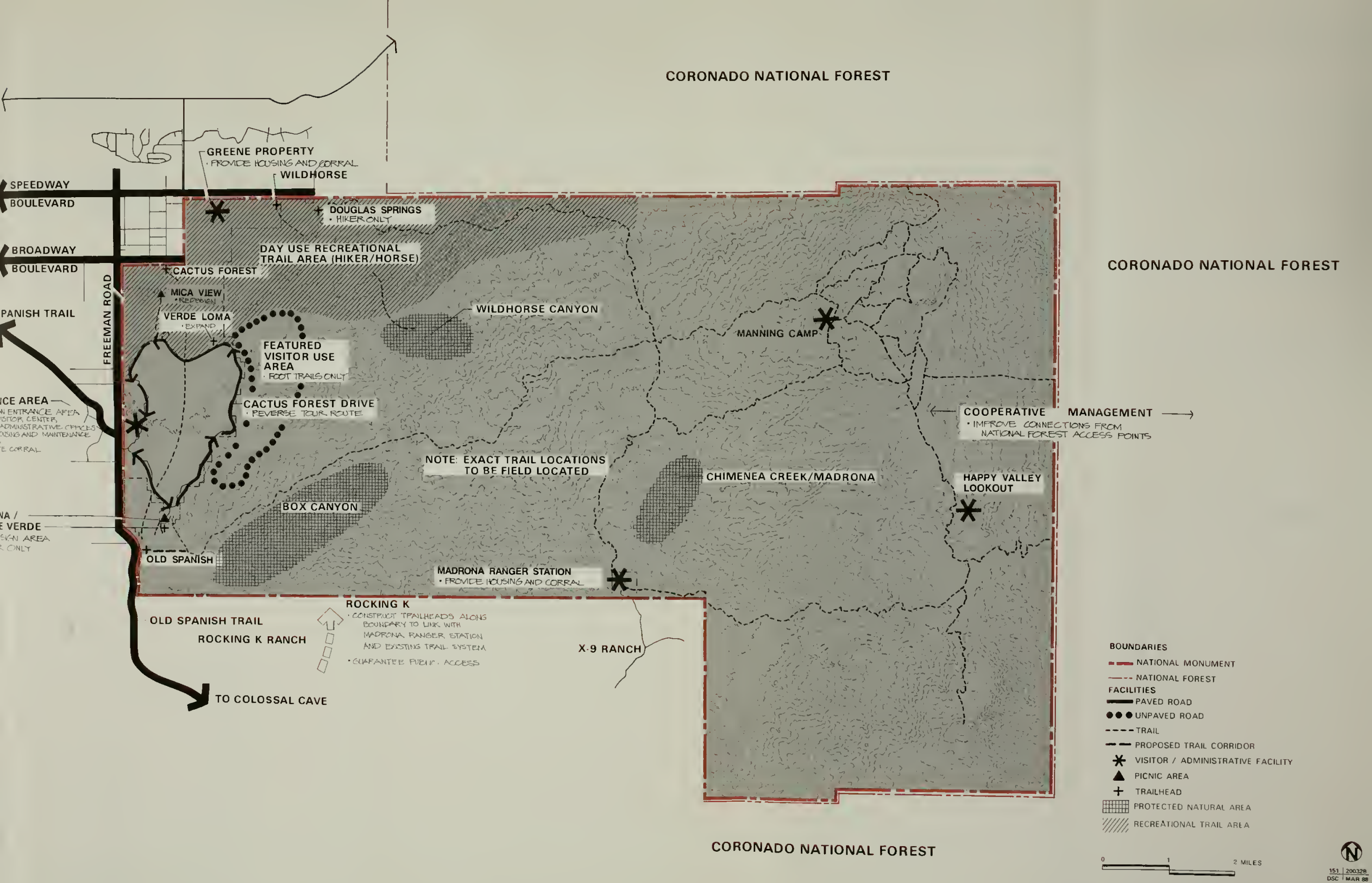
The district's primary resource values will be the focus of interpretation. Visitors will be encouraged to get out of their cars, experience the desert frontcountry, and view the adjacent mountains and city. Short trails to points of interest or viewing areas will be provided, and the sites will be interpreted through publications or wayside exhibits.



CORONADO NATIONAL FOREST

THE PLAN

BARO NATIONAL MONUMENT
 STATES DEPARTMENT OF THE INTERIOR / NATIONAL PARK SERVICE



RINCON MOUNTAIN DISTRICT

THE PLAN

SAGUARO NATIONAL MONUMENT
UNITED STATES DEPARTMENT OF THE INTERIOR / NATIONAL PARK SERVICE

The interior of the visitor center will be redesigned for better circulation. New media will be provided to focus awareness on the district's existing resources. Environmental education programs for local schools and groups will be provided. Eventually such programs may be operated from a facility in cooperation with the Rocking K development or other interested organization.

The Javelina picnic area will be redesigned to eliminate traffic congestion and trailhead conflicts, and the Mica View picnic area will be rehabilitated and shade structures provided. The featured visitor use area will include a few picnic tables and toilets.

The entrance area will be redesigned to improve circulation and parking and to accommodate larger vehicles. The present one-way direction of the Cactus Forest Drive will be reversed, and a carrying capacity established for the loop drive. A tram service for the Cactus Forest Drive was studied, but the tram concept did not suit the visitor experience being sought and appeared economically infeasible without charging high fees.

The existing frontcountry trail system will be redesigned, eliminating unnecessary trails and providing new ones to points of interest. A day use recreational trail area will be provided north of the Cactus Forest Drive for horseback riders and hikers. Trails here will be designed and maintained for intensive use; they will be of differing lengths and lead to a variety of scenic features. The Douglas Springs, Wildhorse, and Cactus Forest trailheads will be developed to provide access into the monument along the northwest boundary. Cooperation with Pima County will be undertaken to ensure adequate parking. Douglas Springs will be designated a hiker entrance; Wildhorse, Old Spanish, and Cactus Forest will serve both hikers and horseback riders. The portion of the Cactus Forest Trail inside the loop road and the trail originating at the Old Spanish trailhead will remain open to hikers and horseback riders. Other existing entrances will be closed. Signing at trailheads will be improved.

Backcountry use will continue under existing policies until the backcountry management plan is prepared. Camping will be confined to designated campsites until dispersed camping can be evaluated. Manning Camp will be rehabilitated and improved to provide a site for corralling horses and pack animals; corralling will be confined to this area. Two new trail access points to the backcountry will be developed for public use along the south boundary in cooperation with the Rocking K development, and a trail will eventually connect these points with the trails leading from the Madrona ranger station. The National Park Service will cooperate with the Forest Service in providing better wilderness access points from lands on the Coronado National Forest to the east and north of the Rincon Mountain district.

As part of the redesign of the entrance area, the maintenance area will be vegetatively screened from the visitor center area. Staff housing will be retained at the entrance area for protection personnel responsible for after-hours emergency response; the horse corral will be removed. The

house and horse corral at Madrona will be retained, and the Greene property will be used for housing and horse corrals when the life tenancy agreement expires. A trail will connect these corrals to the established trail system. Manning Camp will be improved and continue to be adaptively used as a base for backcountry operations and fire patrols. Happy Valley Lookout will be retained.

The existing management zoning system will be retained, except that three protected natural area subzones will be established in Box Canyon, Lower Madrona/Chimenea Creek Canyon, and Wildhorse Canyon. In addition, all major boundary trailheads within the park will be zoned as development, as will the Greene property for its eventual conversion to park housing.

SCHEDULE OF IMPLEMENTATION

- Phase I - Rincon Mountain district - trail rehabilitation and redesign and trailhead development (excluding the south boundary area); Tucson Mountain district - trail rehabilitation and redesign, trailhead development on east boundary, and conversion of Golden Gate Road to trail corridor
- Phase II - Tucson Mountain district - redesign of the Red Hills complex, and development of interpretive trails and orientation waysides.
- Phase III - Rincon Mountain district - development of featured visitor use area, redesign of the entrance area and the Mica View and Javelina picnic areas, and provision of south boundary public access
- Phase IV - Tucson Mountain district - restoration of remaining gravel roads, removal and reclamation of roads, development of remaining trailheads, and expansion of the trail system

COSTS

The estimated costs for development of this plan are shown in the following table.

Table 1: Estimated Development Costs - The Plan

<u>Development Action</u>	<u>Gross Construction Costs</u>	<u>Advance and Project Planning Costs</u>	<u>Total Project Costs</u>
<u>Tucson Mountain District</u>			
Redesign and expand Red Hills visitor center area (2,000 sq ft with parking expanded to 35 cars)	327,500	62,500	390,000
Provide trailhead at Red Hills	7,860	1,500	9,360
Relocate maintenance area within site and add administrative offices	393,000	75,000	468,000
Provide 3 new trailheads with 10-car parking, vault toilets, 2 picnic tables, hitching post, trailer parking (\$29,000 each)	113,970	21,750	135,720
Expand and rehabilitate trail system (approximately 30 miles)	655,000	125,000	780,000
Redesign and gravel Bajada loop and portions of Golden Gate Road (7 miles)	1,750,000	333,900	2,083,900
Convert Golden Gate Road to trail corridor (2-1/2 miles)	259,380	49,500	308,880
Obliterate 2-3/4 miles of Picture Rocks Road and convert to trail corridor	387,760	74,000	461,760
Obliterate and restore 2 miles of Sandario Road	<u>417,890</u>	<u>79,750</u>	<u>497,640</u>
Subtotal - Tucson Mountain District	\$4,312,360	\$822,900	\$5,135,260

<u>Development Action</u>	<u>Gross Construction Costs</u>	<u>Advance and Project Planning Costs</u>	<u>Total Project Cost</u>
<u>Rincon Mountain District</u>			
Redesign visitor center and entrance area	\$ 313,090	\$ 59,750	\$ 372,840
Redesign and expand parking area (35 cars, 5 oversize)	78,600	15,000	93,600
Obliterate corral and restore site	10,480	2,000	12,480
Develop 5 pulloffs/waysides, 2 with vault toilets and picnic tables	68,120	13,000	81,120
Provide unpaved 10-car parking, vault toilets, hitching post, trailer parking at Old Spanish trailhead	37,990	7,250	45,240
Provide unpaved 5-car parking, vault toilets, 1 picnic table, hitching post, trailer parking at Cactus Forest trailhead	32,750	6,250	39,000
Provide unpaved parking for 10 oversize, vault toilets, 2 picnic tables, hitching post, trailer parking at Wildhorse trailhead	44,540	8,500	53,040
Provide unpaved 15-car parking, vault toilets, 2 picnic tables at Douglas Springs trailhead	43,230	8,250	51,480
Redesign Javelina picnic area (paved parking for 9 sites, redo 7 shelters)	32,750	6,250	39,000
Rehabilitate Mica View picnic area, including entrance road	19,650	3,750	23,400
Rehabilitate designated backcountry trails (85 miles)	524,000	100,000	624,000
Redesign frontcountry trails (20 miles)	<u>655,000</u>	<u>125,000</u>	<u>780,000</u>
Subtotal - Rincon Mountain District	\$1,860,200	\$ 355,000	\$2,215,200
Total - Both Districts	\$6,172,560	\$1,177,900	\$7,350,460

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As the nation's principal conservation agency, the Department of the Interior has basic responsibilities to protect and conserve our land and water, energy and minerals, fish and wildlife, parks and recreation areas, and to ensure the wise use of all these resources. The department also has major responsibility for American Indian reservation communities and for people who live in island territories under U.S. administration.

Publication services were provided by the editorial and graphics staffs of the Denver Service Center. NPS D-29A April 1988

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